

Comparison of urinary excretion of total polyphenols after a high antioxidant diet and a low antioxidant diet

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Background and objectives:

The hypothesis proposed was that the bioavailability of bioactive compounds, such as polyphenols, may be higher when the body is under a stressful situation (such a low antioxidant diet). The aim of this work was to compare the urinary excretion of total polyphenols before and after the intake of a single dose of *sofrito* after following either a high or a low antioxidant diet.

Methodology:

A crossover, randomized and controlled interventional study was carried out. Twenty-two healthy volunteers between 18 and 32 years performed two interventions, a high antioxidant diet and a low antioxidant diet for two weeks. Then, they consumed a single dose of *sofrito*. Polyphenols in urine were assessed by the Folin-Ciocalteu method before and after *sofrito* intake (from 0h to 24h).

Results and conclusions:

The concentration of polyphenols in urine was significantly higher after having the high antioxidant diet. However, the urinary concentration of polyphenols between 0 a 3 hours after the *sofrito* intake was higher among participants who followed the low polyphenolic diet. This response may be due to a higher absorption of polyphenols after following a low antioxidant diet.

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